U.S. Appln. No.: 09/842,197

REMARKS

The present invention relates to a float textile having an improved optical interference

function.

In the Office Action dated September 30, 2002, the Abstract of the Disclosure was

objected because it was more than one paragraph in length. The sole grounds for rejection was

alleged anticipation of claims 1-8 under 35 U.S.C. § 102(b) based on WO 98/46815, with

corresponding U.S. patent 6,430,348 to Asano et al being referenced and portions thereof

specifically cited for the proposition that Asano et al discloses an optical interference functional

fiber which may be formed into the claimed textiles (emphasis added). It was asserted that the

fabric of Asano et al has the claimed L value, float texture, float ratio, and flattening ratio, and it

was further asserted that the fabric may be formed into car and room interiors.

In response to the Office Action, first, Applicants have herein replaced the original

Abstract of the Disclosure with a new Abstract of the Disclosure, in which the abstract is set

forth as a single paragraph, in compliance with MPEP § 608.01(b).

With respect to the prior art rejection based on Asano et al, Applicants respectfully

traverse. Referring to independent claim 1 of the present application, it is seen that the float

textile of the present invention has several features of significance, as follows:

(a) Its float texture is formed from multi-filament yarns each comprising, as a constituent

unit, optically interfering mono-filaments which are formed by alternately laminating layers of at

least two polymers having different refractive indices, and which have a flattening ratio of 4 to

15.

(b) The float texture of the textile is formed by combining the above three or more multi-

filament yarns and interlacing the multi-filament yarns to form 20 or less interlaces per meter.

(c) In the float texture, the above noted multi-filament yarns are used as a warp float

and/or as a weft float component.

(d) The float number is 2 or more.

The combination of the above characteristics results in the float textile of the present

invention having a bright cover development effect.

One important feature that provides for sufficient color development effect is that the

number of interlaces of the multi-filament is 20 or less per meter, as indicated in feature (b)

above. This characteristic of 20 or less interlaces of the multifilaments means that the axial

twisting of flat filaments is substantially null or very rare. Since the flat filaments are no more

than rarely axially twisted, a bright color is developed.

The foregoing can be understood from a comparison of invention Example 1 and

Comparative Example 3 (see pages 16-17 and Table 1 of the present application).

In Example 1 and Comparative Example 3, optically interfering yarns of 360 Dtex is used

and the number of interlacing fibers is 3. However, the number of interlaces is 30 in the case of

Comparative Example 3, and 15 in the case of Example 1.

The optical interference effects of a float textile are a slight glass color change and slight

color development in the case of Comparative Example 3, versus sufficient gloss, color change,

and color development in inventive Example 1. This is seen to be attributable to the difference

in the number of interlaces (see Table 1 (continued) on page 17).

Further reviewing the Asano et al reference, it is seen that Asano et al describes an

optically interfering mono-filament having a flattening ration of 4 to 15, and indicates that such

filament can be used in float textile. However, Asano et al fails to teach how multi-filament

yarn is produced from optically interfering mono-filaments, and how a float textile having

sufficient gloss, color change, and color development can be obtained from Asano et al's multi-

filament yarn. Particularly, the Asano et al reference fails to teach or recognize the role of

reducing the axial twisting of the optically interfering mono-filaments having a flat cross-section,

nor how much the number of interlaces must be reduced to obtain the desired properties that are

found in the cases of the present invention.

In summary, the Asano et al reference fails to teach or suggest that a float textile having

the above-noted features (b), (c), and (d) could be formed from the mono-filaments having the

feature (a) that is disclosed in Asano et al. There is no basis in Asano et al for recognizing that a

float textile having sufficient gloss, color change, and color development would result from the

required features (b), (c), and (d) of the presently claimed invention.

Accordingly, it is respectfully submitted that the presently claimed invention is

unanticipated, and is patentable over the Asano et al reference.

Therefore, the allowance of claims 1-8 is respectfully submitted to be proper.

Early favorable action is earnestly solicited.

In the event that the Examiner believes that it may facilitate the further prosecution of this

application, the Examiner is invited to contact the undersigned attorney at the local Washington,

D.C. telephone number indicated below.

AMENDMENT UNDER 37 C.F.R. § 1.111

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The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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PATENT TRADEMARK OFFICE

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APPENDIX

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE ABSTRACT OF DISCLOSURE:

The original Abstract of the Disclosure is deleted, and is replaced by the Abstract of

the Disclosure below:

Abstract of the Disclosure

A float textile having an improved optical interference function, containing a float texture

yarn formed by combining three or more multi-filament yarns each comprising, as a constituent

unit, optically interfering mono-filaments which are formed by alternately laminating layers of at

least two polymers having different refractive indices and which have flattening ratio of 4 to 15

and by interlacing the multi-filament yarns to form 20 or less interlaces per meter, used as a warp

float and/or weft float component, and having a float number of 2 or more. A spun-dyed textile

which is formed by combining a large number of optically interfering multi-filament yarns can

provide a float textile which can exhibit a bright color development effect and can expand the

utility thereof to room interior and car interior fields.